

Name: _____

Evaluate:

$$\text{a) } \lim_{x \rightarrow 0} \frac{x^2 - 4x}{x^2 + 2x}$$

$$= \lim_{x \rightarrow 0} \frac{x(x-4)}{x(x+2)}$$

$$= \lim_{x \rightarrow 0} \frac{x-4}{x+2}$$

$$= \frac{-4}{2}$$

$$= -2$$

$$\text{b) } \lim_{x \rightarrow 3} \frac{x^2 - 9}{x^2 - 8x + 15}$$

$$= \lim_{x \rightarrow 3} \frac{(x-3)(x+3)}{(x-3)(x-5)}$$

$$= \lim_{x \rightarrow 3} \frac{x+3}{x-5}$$

$$= \frac{6}{-2}$$

$$= -3$$